

(No Model.)

2 Sheets—Sheet 1.

H. L. WILSON.

MANUFACTURE OF HANGERS FOR STEAM BOILERS.

No. 362,473.

Patented May 3, 1887.

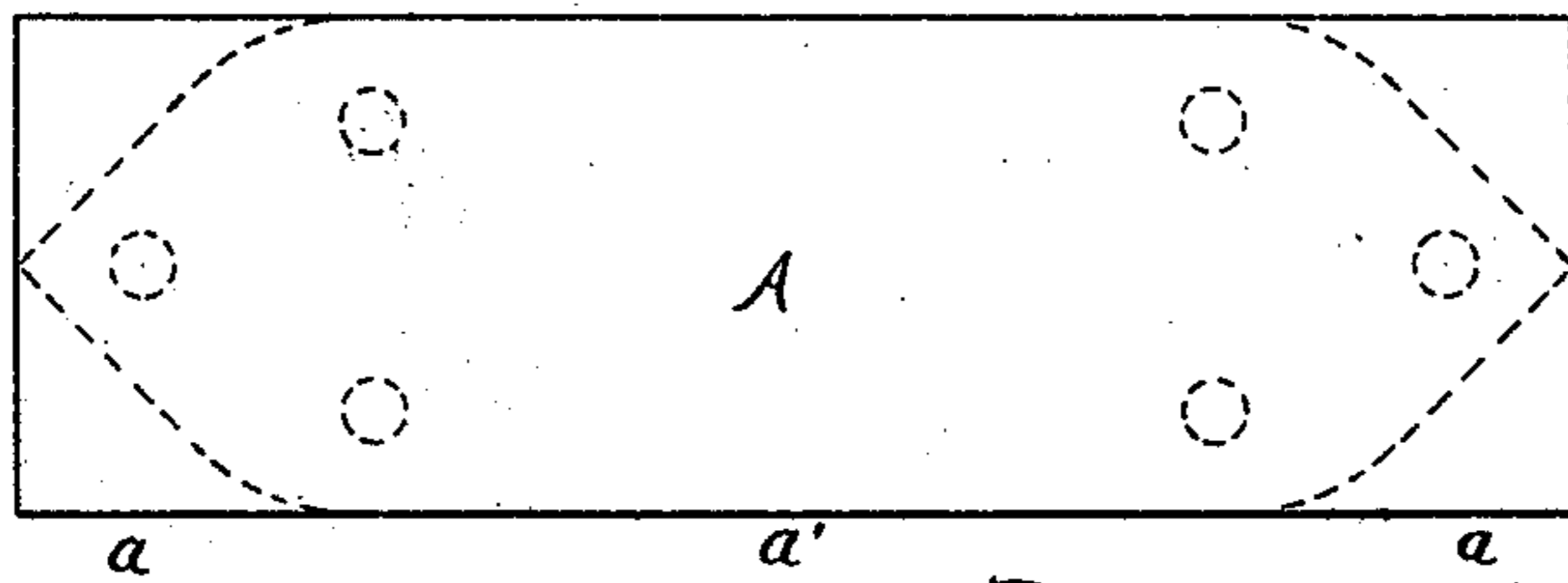


Fig. 1.

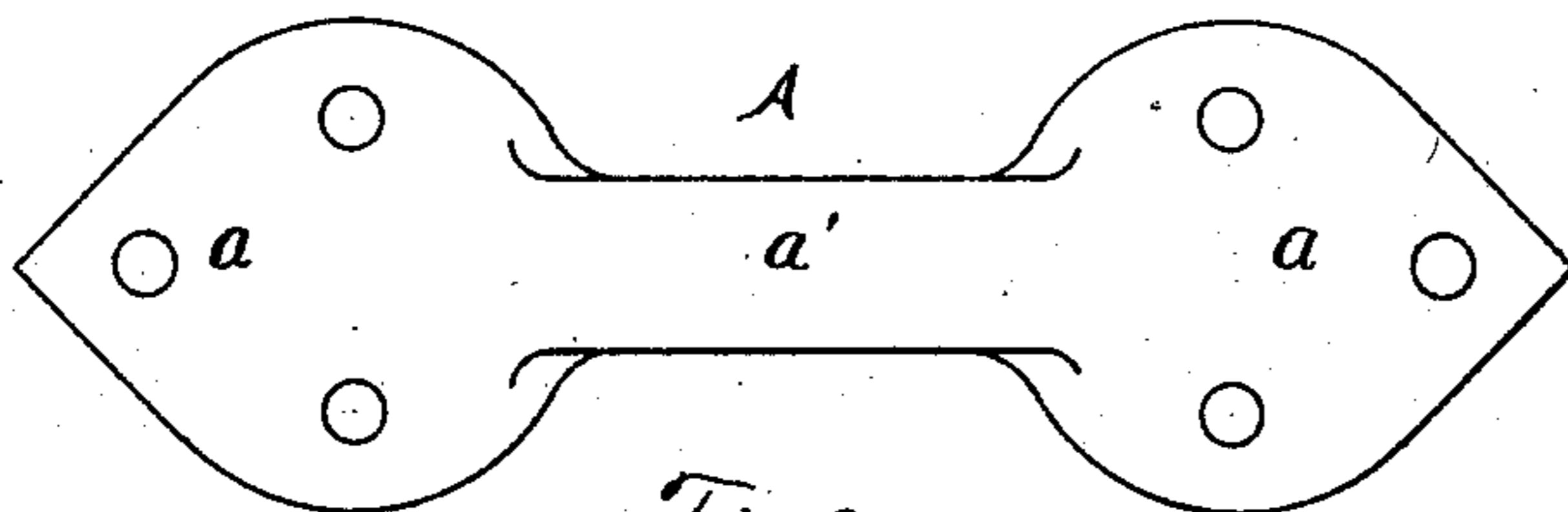


Fig. 2.

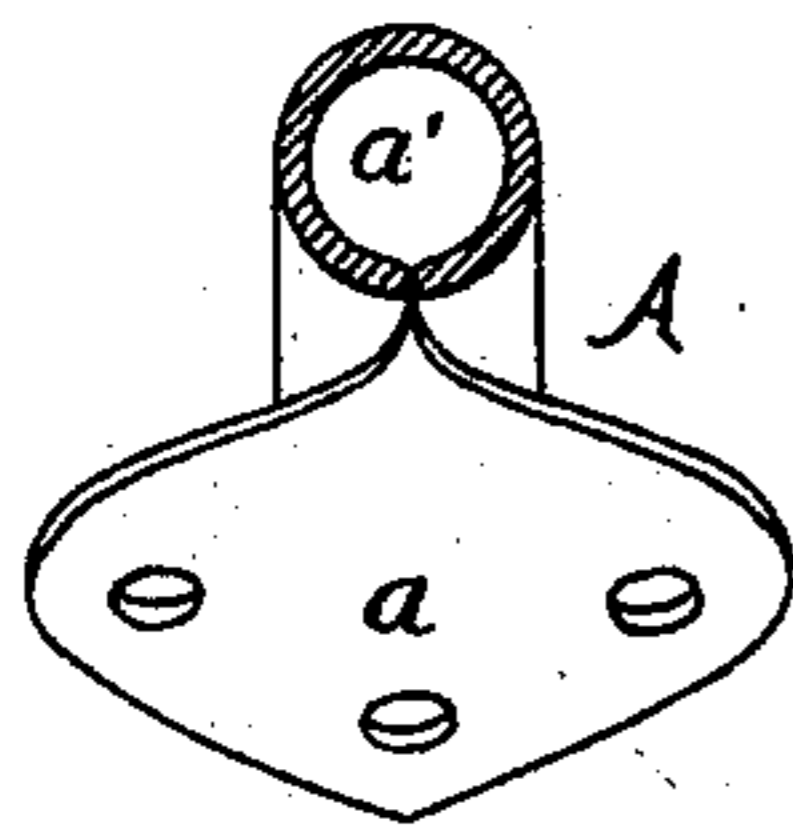


Fig. 4.

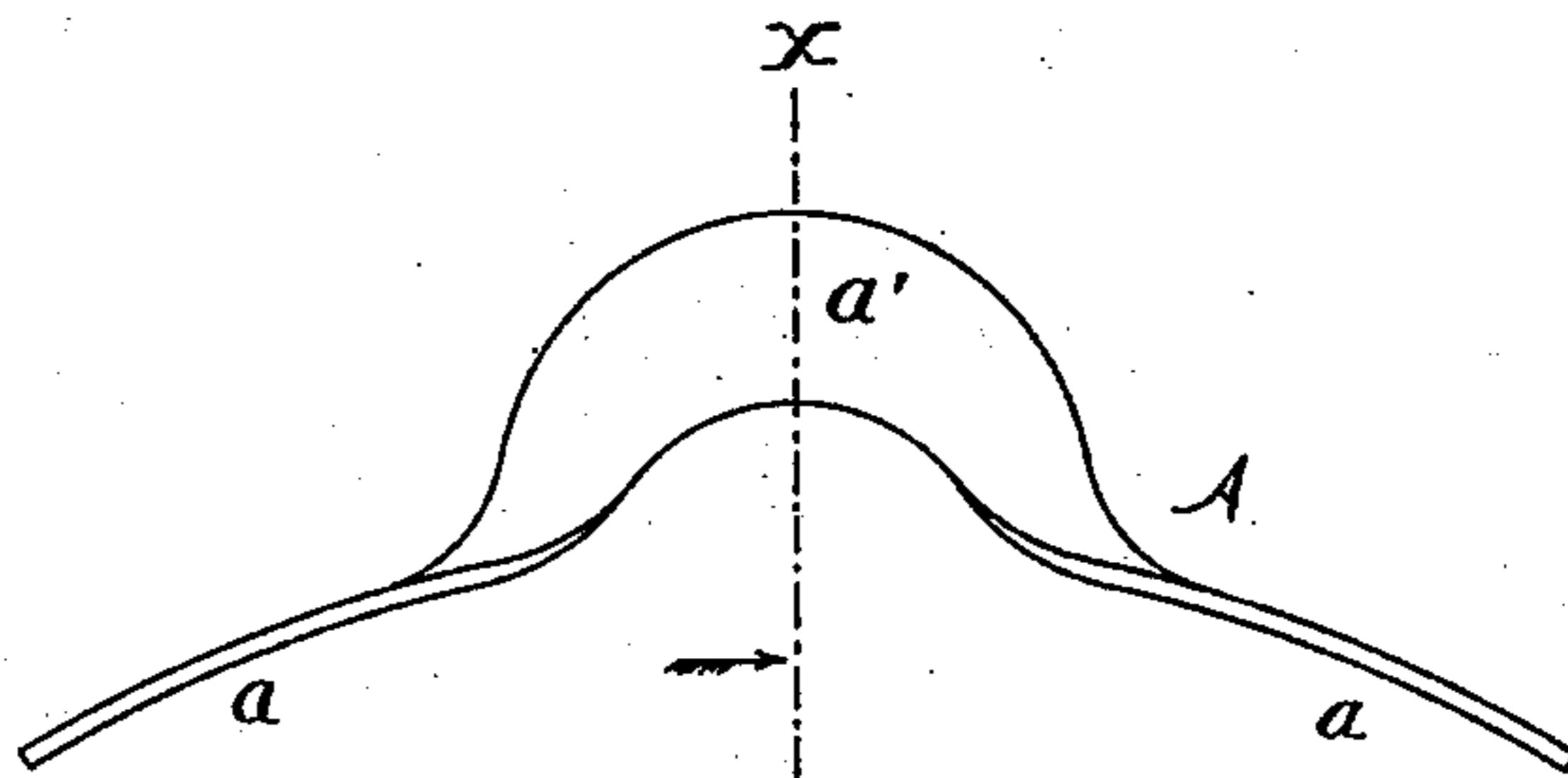


Fig. 3.

Witnesses.

R. H. Porter.

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Inventor.

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Att's.

(No Model.)

2 Sheets—Sheet 2.

H. L. WILSON.

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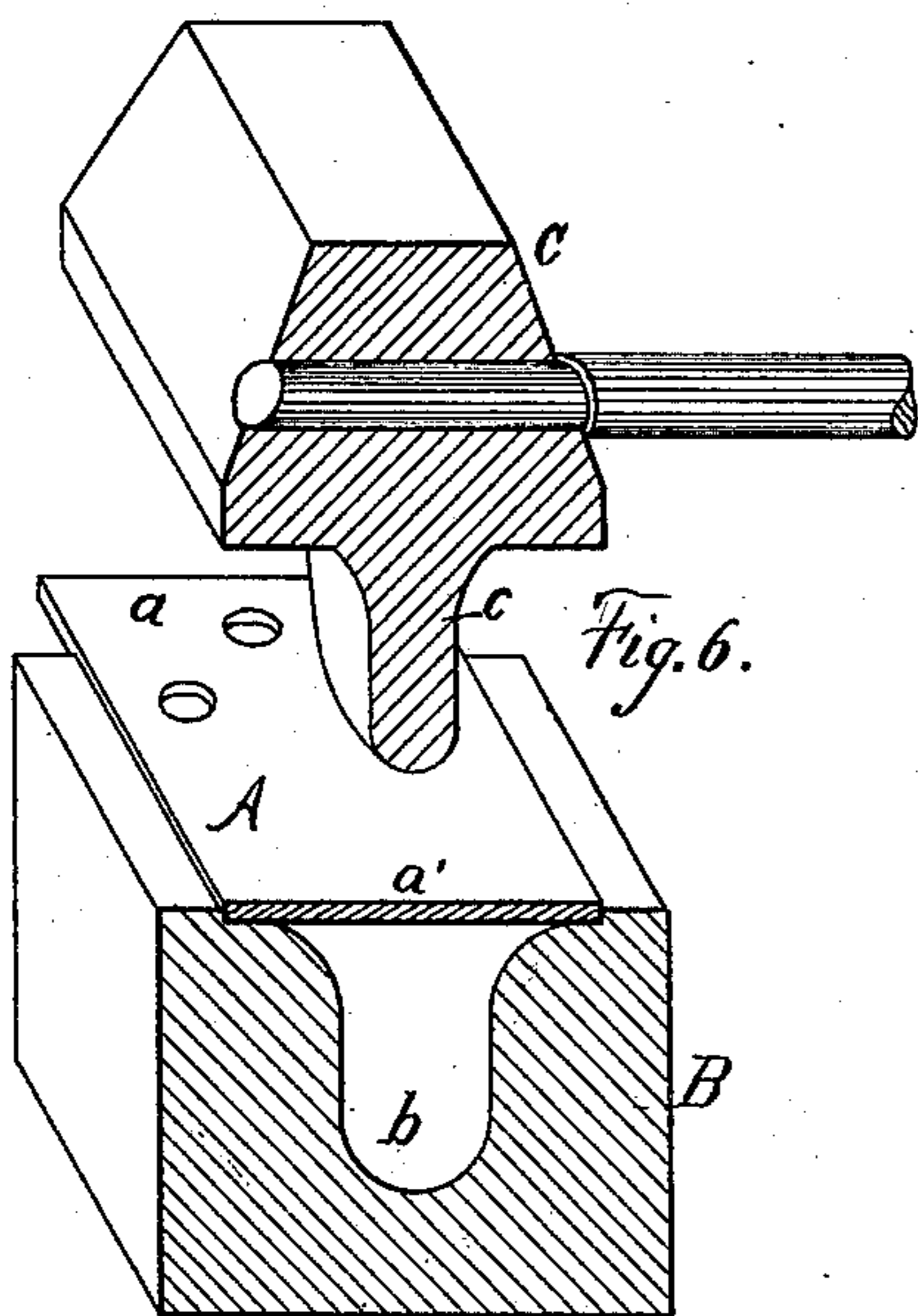


Fig. 6.

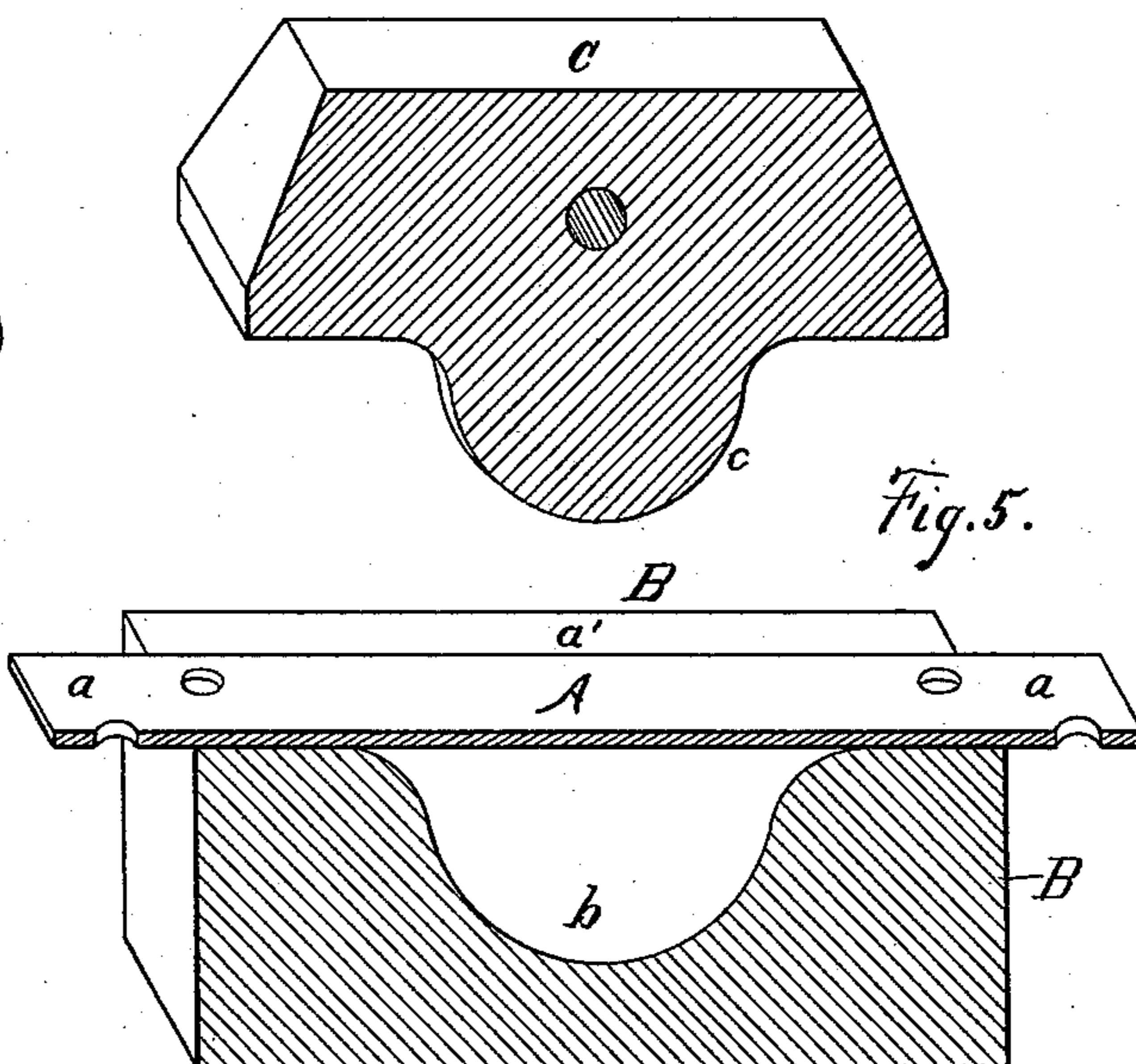


Fig. 5.

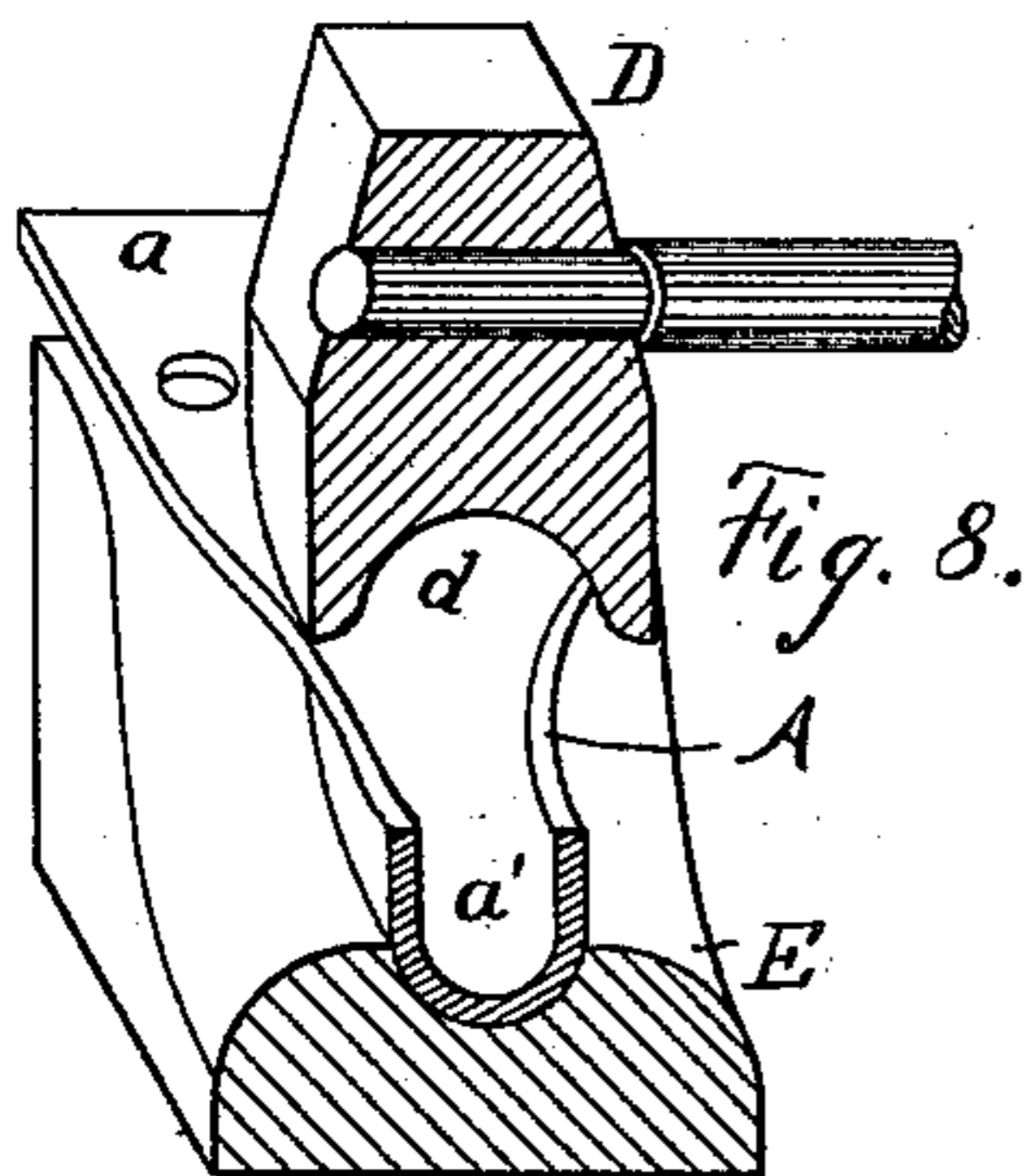


Fig. 8.

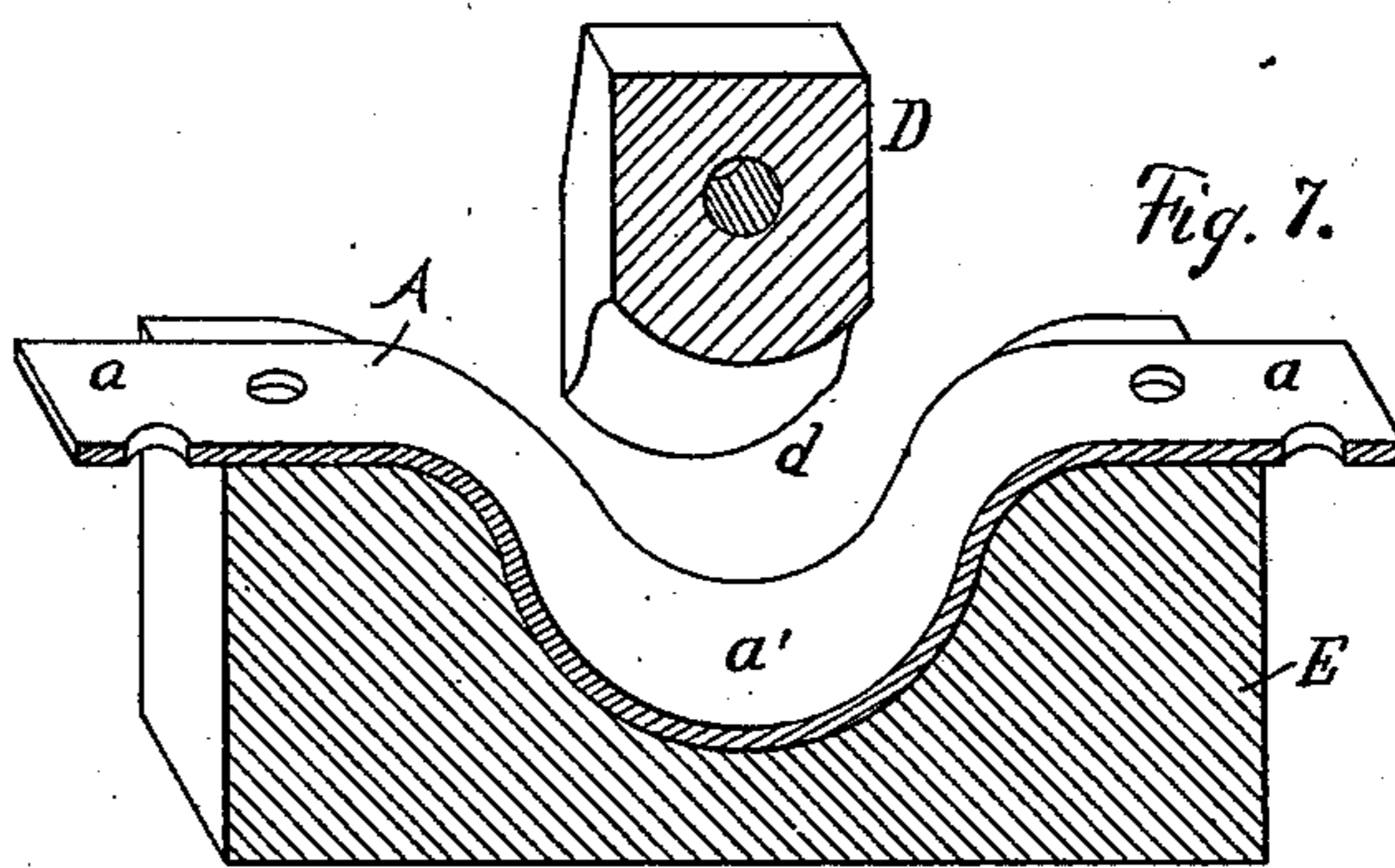


Fig. 7.

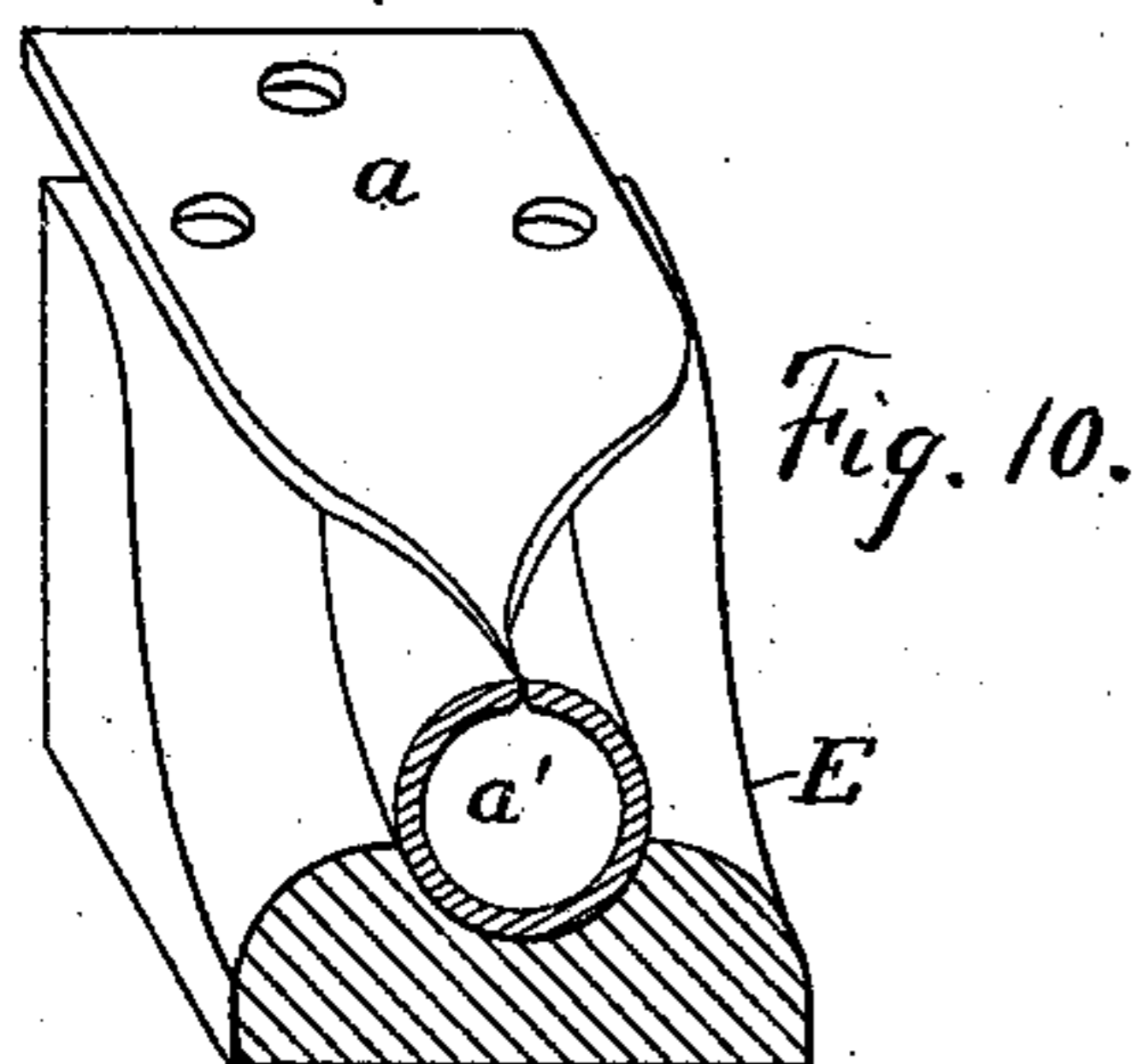


Fig. 10.

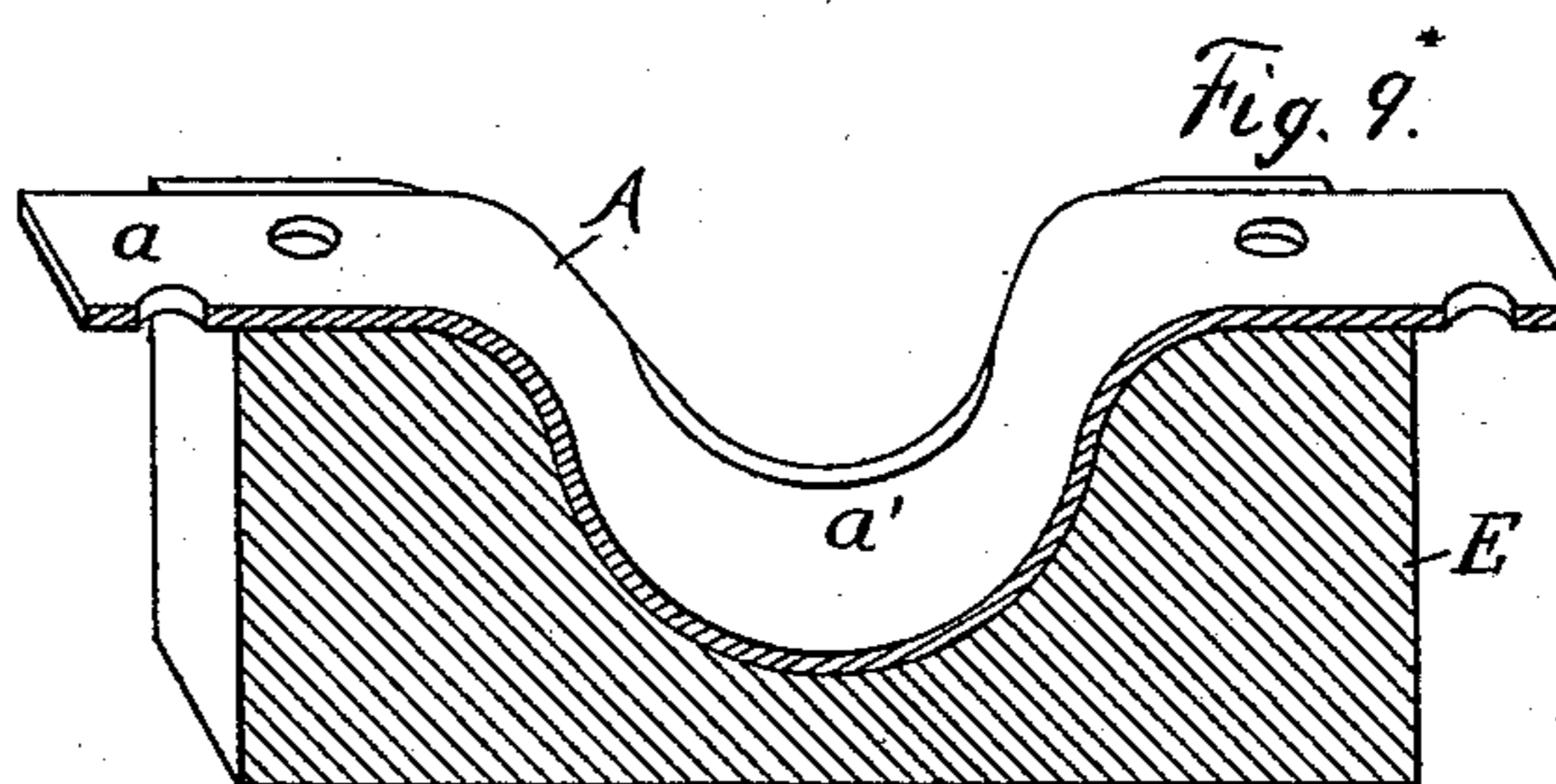


Fig. 9.

Witnesses.

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# UNITED STATES PATENT OFFICE.

HARRY L. WILSON, OF ERIE, PENNSYLVANIA.

## MANUFACTURE OF HANGERS FOR STEAM-BOILERS.

SPECIFICATION forming part of Letters Patent No. 362,473, dated May 3, 1887.

Application filed December 15, 1886. Serial No. 221,064. (No model.)

*To all whom it may concern:*

Be it known that I, HARRY L. WILSON, a citizen of the United States, residing at Erie, in the county of Erie and State of Pennsylvania, have invented certain new and useful Improvements in Hangers for Steam-Boilers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to hangers for steam-boilers; and it consists in improvements in the article and the means for producing the same.

A steam-boiler hanger is a loop or bow of metal riveted on the top of the boiler to afford means for the engagement of the suspending rods or chains. Heretofore such hangers have been made by forging them out of round iron. Thus produced, they are quite expensive, as not only is there considerable metal used, but the work of forging consumes much time.

The object of my invention is to make these hangers from pieces of scrap boiler-iron or steel by swaging them up in swages or formers, thus saving not only much time in the operation of making them, but also using up off-fallings from the shop, which otherwise will go into the scrap-pile.

The hanger I thus produce is not only cheaper, but it is stronger and lighter than those forged out of round iron.

My device and the manner of its production is illustrated in the accompanying drawings, as follows:

Figure 1 is a plan view of the blank from which the hanger is made. The dotted lines show the manner of trimming and punching the blank. Fig. 2 is a top view of a completed hanger. Fig. 3 is a side view of the same. Fig. 4 shows it cut in transverse section on the line *xx* in Fig. 3, looking from said line. Fig. 5 is a longitudinal vertical perspective section through the blank and the male and female swages by which the blank receives its first bending. Fig. 6 is a transverse vertical perspective section of the same parts as are shown in Fig. 5. Figs. 7 and 8 are perspective sections like Figs. 5 and 6, showing the swages by which the second and last bend is

made. Figs. 9 and 10 are views like Figs. 7 and 8, showing the blank entirely formed ready to trim.

A is the blank, *a a* designating the ends, which remain unbent, and *a'* the central part, which is turned into the form of a tube by the swaging operation.

B is the first swage-block, and C the first swage. By these dies the central part, *a'*, of the blank is brought into a trough form, as is shown in Fig. 8.

E is the second swage-block used, and D the second swage. By these dies the central part, *a'*, of the blank is bent into a tubular form, as shown in Figs. 1, 2, and 10.

After the blank has been swaged as described, the ends *a a* are hammered on an anvil to give them the proper flare to fit any-sized boiler required. This brings them into the form shown in Fig. 3.

The trimming off of the corners of the blank may be done before or after it is swaged, as desired.

The swaging may be done when the metal is cold, if the metal is of sufficiently good quality to endure the strain when cold; but I prefer to work the blank hot, as it works easier.

What I claim as new is—

1. As a new article of manufacture, a steam-boiler hanger made of a blank, A, of sheet metal by swaging its central part, *a'*, into a tube-like form and bending its ends *a a* to conform to the contour of the boiler, substantially as set forth.

2. Dies, substantially as herein described and shown, for forming boiler-hangers from sheet metal, namely: the bottom die, B, and top die, C, for bending the central part of the blank into a trough form, and the bottom die, E, and upper die, D, for bending the central part of the blank from a trough form into a tube form, as described.

In testimony whereof I affix my signature in presence of two witnesses.

HARRY L. WILSON.

Witnesses:

ROBT. H. PORTER,  
W. S. BROWN.